April 22, 1847.

The MARQUIS OF NORTHAMPTON, President, in the Chair.

The Earl of Mountcashel, Henry Alexander, Esq., George Burrows, M.D., Sir Fortunatus Dwarris, William Hutchison Hall, Esq., Capt. R.N., Joseph Dalton Hooker, M.D., John Percy, M.D., and Sir Francis Simpkinson, Q.C. were elected Fellows of the Society.

John Farey, Esq. and George Smith, Esq. were put to the ballot but not elected.

"On a new substance occurring in the Urine of a Patient with Mollities Ossium." By Henry Bence Jones, M.D., F.R.S., Physician to St. George's Hospital.

The chemical analysis of this substance showed it to be the hydrated deutoxide of albumen, of which 66·97 parts were contained in every 1000 parts of urine, an amount equal to the proportion of albumen in healthy blood; so that every ounce of urine secreted was equivalent to the loss of an equal quantity of blood. The peculiar characteristic of this substance was its solubility in water, and its being precipitated by nitric acid; the precipitate being dissolved by heat, and again thrown down by cold. The urine which contained it was reddened by the addition of nitric acid; a phenomenon, the occurrence of which might, in future cases, lead to its re-discovery.

A letter was read from William A. Norton, Esq., addressed to the President and Fellows of the Royal Society, and communicated by Lieut.-Colonel Sabine, R.A., For. Sec. R.S., containing the notice of some results which the author states he has obtained from a mathematical investigation founded on a new theory of Terrestrial Magnetism, and which he intends, at an early period, to communicate to the Society.

April 29, 1847.

The MARQUIS OF NORTHAMPTON, President, in the Chair.

"On Carbonic Acid as a Solvent in the process of Vegetation." By John Davy, M.D., F.R.S.

In this paper the author describes the results of experiments made with water saturated with carbonic acid, in many instances condensed by pressure and supersaturated, on the more important inorganic elements of plants, compounds not soluble in water alone, such as phosphate of lime, silica, &c. These results appear to prove that this acid performs in the economy of growing plants a double function; one well-known, already carefully studied, by which, undergoing decomposition in the leaves under the influence of solar light, it supplies carbon to the growing vegetable, and restores oxy-